IN THE CLAIMS

1. (Previously Presented) A medical system architecture for interactive transmission and progressive representation of compressed image data of multi-component images, comprising:

at least one imaging modality that acquires image data from a subject representing examination images each having a slice thickness within the subject from which said image data are obtained;

for each imaging modality, a computer workstation associated therewith that processes the image data acquired by the associated imaging modality;

a communication network in communication with said computer workstation that transfers said examination images, after processing in the computer workstation, to locations remote from said computer workstation;

a storage device in communication with said communication network that stores said examination images;

at least one further workstation in communication with said communication network that post-processes the examination images processed in said computer workstation;

a compression device in communication with said computer network that compresses and organizes the image data representing said examination images and stores the compressed data in packets, as packetized image data, with a parameter linked to the respective

packets, defining permissible access to the respective packets, that specifies a slice thickness progression; and

a decompression device in communication with said communication network that decompresses the packetized image data packet-by-packet dependent on a request from said further workstation and dependent on said parameter, to cause a multi-component image to be generated at said further workstation composed of a plurality of said examination images, with the respective examination images in said multi-component images having a selectively variable slice thickness, along said slice thickness progression, that is selected dependent on said parameter.

2. (Previously Presented) A medical system architecture as claimed in claim 1 wherein said compression device generates further parameters respectively linked with said packets in addition to said parameter specifying slice thickness, selected from the group consisting of a parameter specifying an image resolution level, a parameter specifying an image quality level, a parameter specifying a region of interest, and a parameter specifying a component index, and wherein said decompression device employs said parameters to generate said multi-component images with at least one of a progressive image resolution, progressive image quality levels, and consistent region of interest presentation, respectively.

3. (Previously Presented) A medical system architecture as claimed in claim 1 wherein said compression device generates supplementary information and requests and transmits said supplementary information and requests to said further workstation together with the compression packetized image data.

4. (Previously Presented) A medical system architecture as claimed in claim 1 wherein said compression device transmits a total quantity of data in compressed state, with said parameters, to said further workstation.

5. (Previously Presented) A medical system architecture as claimed in claim 1 wherein said compression device transmits an entire file for an image in compressed state to said further workstation.

6. (Previously Presented) A medical system architecture as claimed in claim 1 wherein said compression device transmits information identifying packets that have already been sent and parameters that have already been transmitted in advance to said further workstation.

7. (Previously Presented) A medical system architecture as claimed in claim 1 wherein said compression device generates and communicates a message to said further workstation after conclusion of transferring a consistent set of said image data.

8. (Previously Presented) A medical system architecture as claimed in claim 7 wherein said compression device generates and transmits a render request as said message.

9. (Previously Presented) A medical system architecture as claimed in claim 7 wherein said compression device generates and transmits a storage recommendation as said message.

10. (Previously Presented) A medical system architecture as claimed in claim 1 wherein said further workstation has user rights associated therewith, and wherein said compression device transmits the compression packetized image data, or portions thereof, to said further workstation dependent on said user rights.

11-15. (Cancelled).